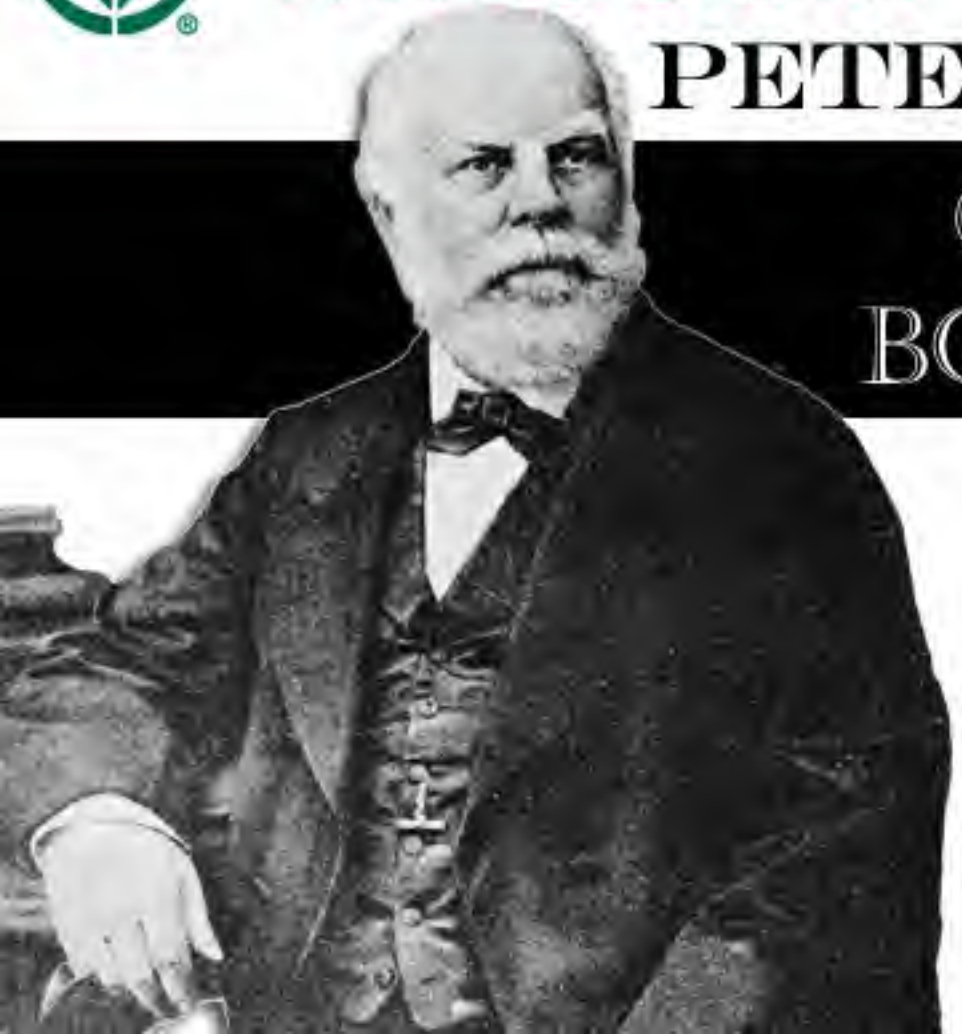
# Missouri Botanical Garden
## Peter H. Raven Library

# George Engelmann Botanical Notebooks



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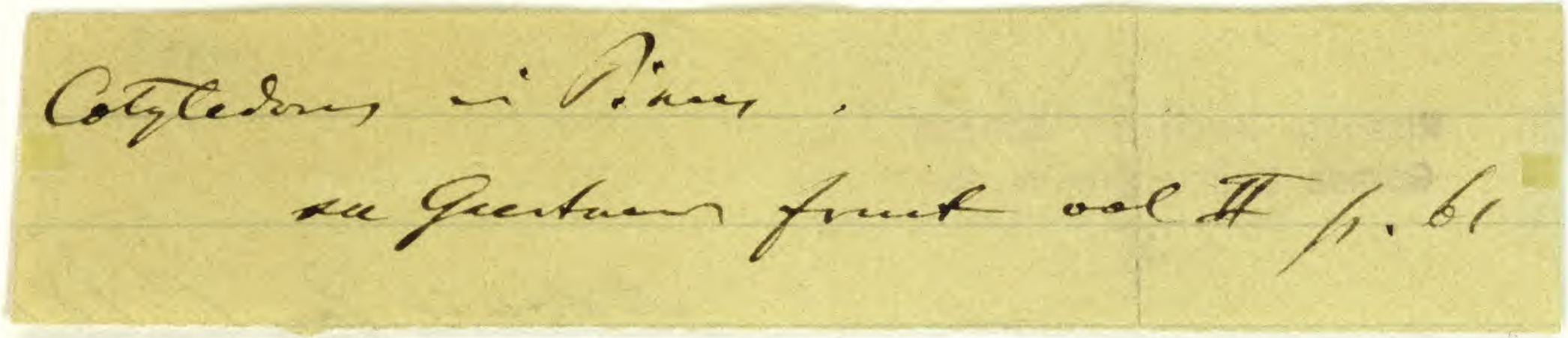

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11813

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Adonis Jan 1st 18[illegible]

Coty Cedrus of Pinus ex

Richard Mem. Conifer

| | | |
|---|---|---|
| Pinus sylvestris | 6–7 | Coty Cat |
| P. Pinea | 8–12 | — |
| Abies Cedrus | 9–11 | |
| — Larix | 5–7 | |
| — excelsa | 5–7 | |
| P. Lucis chops | 4 | Ch. III |
| — Lambertiana | 5 | x |
| — Strobus | 8 | e |

11814

Yours truly
W. Trauvetter

Dr. G. Engelmann

4 small packages.

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a few more plant
morning for mar
for want of time
to send this by
yesterday evening
several bunches of
one or two of which
this A.M. the oth
placed in alcoh
will take them
If there is anyth
about the rose
if they are not r

Yeşilçam Fenerbahçe Der Cam

p. 57 ff. Abies pectinata 4-7 mally 5 Colyl.

A. balsamea 4 Colyl

P. excelsa 5-10 mally 7-8

Larix × Laricina 5-7 mally 5

P. Cembra 8-12 mally 10

P. Strobus 8-10 " 8-9

P. Cunninghamii 8 (mally 7)

P. glauca 5-6 (3-8)

P. Abies 8-11

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51811

Vessels of Conifers:

Fibro-vascular bundle (Mc Nab 1877
Nervure (Bertrand 1871
bundles
Leitbündel (D. F. Thomas 1865
not really vessels

Gefäßbündel – Fibro-vasal Stränge (D. Geyler 1869
(Blatt-Gefäßstränge (not Conifers) Strasburger 1868)

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11816

Dr Engelmann

Dear Sir. I thought
I would report myself & your Specimens
improving steadily should day I have
not got any pains to complain
of may Bowels are regular and natural

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| Pines | | Sapwood rings | Sapwood rings | Heartwood rings | Heartwood rings | Bark rings | Total rings | Total diameter with bark |
|---|---|---|---|---|---|---|---|---|
| mitis | Delaware Cent. | 42 | 56 | 137 | 264 | 19 | 179 | 4. 8½ |
| " | Missouri | 110 | 28 | 160 | 167 | 4 | 270 | 2 9 |
| tuberculata | Dixie | 26 | 12 | 6 | 6 | 1½ | 22 | 3¼ |
| " | Posey Cent. | | | | | 1½ | 16 | 7 |
| Strobus | N. Carol mts. | 24 | 12 | 16 | 67 | 6 | 200 | 14¼ |
| | Vermont Cent. | 17 | 16 | 30 | 41 | 7 | 47 | 11 |
| flexilis | Utah Cent. | 19 | 17½ | 46 | 46½ | 2 | 65 | 11¼ |
| | Colorado Cent. | 29 | 14 | 72 | 42 | 7 | 101 | 10⅔ |
| Contorta | Bartlett Bay | | | | | 6 | | 17 |
| | " " Sierra dupe | | | | | 7 | 124 | 15 |
| | | | | | | ½ | | |
| Ellio[illegible] | [illegible] | 60 | 36 | 140 | 200 | 12 | 200 | 3 5 |
| Elliottii | S. Carol | 70 | 30 | 74 | 102 | 9 | 144 | 23 |
| monophylla | Elko mts. Nevada | | | 82 | 48 | 6 | 82 | 9 |
| | Cent. | | | | | | | |
| Sabiniana | Cent. | 26 | 61 | 2 | 7 | 7½ | 28 | 12½ |
| rigida | Vermont Cent. | 34 | 39 | 6 | 23 | 8 | 40 | 12 |
| Balfouriana | Utah Cent | 40 | 7 | 254 | 69 | 3 | 300 | 5 |
| Torreyana | Cent. | 24 | 32 | 17 | 42 | 8 | 41 | 13½ |
| glabra | Cent | | | 25 | 100 | 3½ | 35 | 18½ |
| Virginia | Cent. | 24 | | 17 | 54 | 4 | 17 | 9½ |
| Coulteri | Cent | 24 | 18 | 36 | 29 | 8 | 60 | 9¼ |
| muricata | Cent. | 90 | 50 | 450 | 408 | 18 | 540 | 6. 6 |
| " | Lemon Cent Oreg. | 42 | 24 | 130 | 135 | 11 | 172 | 2 4 |
| Lambertiana | Lemon | 103 | 40 | 440 | 394 | 35 | 588 | 7 2 |
| " | Cent | 62 | 38 | 172 | 125 | 11 | 234 | 2 4 |
| Cembra | Cent | 29 | 44 | 6 | 22 | 6 | 35 | 12 |
| ponderosa | Lemmon | | | 124 | 240 | 21 | 124 | 3 8 |
| | Calif. Cent. | 200? | 126 | 100? | 180 | 36 | 300? | 4 10 |
| " | Empire Cf. | | | 200 | 132 | 19 | 300 | 2 1 |
| " | " | | | 200 | 196 | 12 | 300 | 3 |
| | Colorado Cent | 140 | 31 | 90 | 51 | 6 | 230 | 12½ |
| | Utah Cent | 44 | 75 | 13 | 10 | 5 | 57 | 15 |
| resinosa | Lake Superior | 37 | 27 | 24 | 24 | 1½ | 71 | 9 |

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11817

Saukville Wis July 2 79

Dr Geo Engelmann

St Louis Mo

Dear Doctor

Mr Brauch & the children
having all gone now, there is no danger
that paying my bill will make any
of them sick. I'll pay you as the
Lord blesses me & not before

Yours truly
Chas Brauch

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1. 2. 3. 4, 8 12, 13. 14 17

1920

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11818B

The underscored numbers are observed by myself

Number of Cotyledons = Abietineae

Larix 4-7
Europea (4-6) 5 (Rich Con) 5-7
Americana 5(-6)

Tsuga 3-7
Douglasii (Parry) 6-7
Canadensis (Cambridge) 3(-4)

Abies 4-7
pectinata (Germany) 5 Carl. Conif 4 4-7 Gay Cor 3-7 mostly 5 Thuring.
religiosa (Carl Conif.) 5
firma (Carl ex Journ.) 4-5
Veitchii (Carl ex Bowles.) 7
balsamea 4 (Gay Cor)
magnifica 10 Cat. Gt
concolor. Utah 5-7 mostly 6 7-8 Utah. 5-6 glaucii
~~subalpina~~ Colorado. 3-5 mostly 4

Cedrus 9-11
Libani (Paris) 10 Link Linn 15; 6 (Rich Con) 9-11

Pinea 5-9
nigra (Willkomm) 6(-7)
Laricio (Colorado) (5-)6
Mexicana (Colorado) (6-)7
excelsa (Hancock) 6 France 8(-9) Naples 9 Carl. see p. 118. 2-3
Rich. Conif 5-7

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## Pinus

### Pinea (~~Link Lin 15) 8-12 Naples~~) 10-16

P. Pinea (Link Lin 15) 8-12 (Naples) 11-12

Fabriana (Carrière) 11-18 (Visiani) 15-16

Coulteri (Carrière) (8-11) 10 (Boland) 11-14

Torreyana (Parry) 13-14

### Cembroides 8-12

P. cembroides (Link Lin 15) 6 (Saltillo) (8-12) 10

edulis Sarg. Fl. (7-10) 8

Parryana (Parry) 8

monophylla Carrière 8-10 Mich. 9

### Cembra 8-13

P. Cembra (Ledeb. ex Link Lin 15) 9-12 (Endl. p. 144) 6-13 (Schübeler) (11-12

flexilis (Colorado) 8(-9)

pumila Regel

albicaulis

parviflora (Sarg. ex Endl.) 8-10

coraensis (Sarg. ex Endl.) 11-13

### Strobus 8-14

P. Strobus Lindl. 10-11) (France) 8-9 (Endl. Conif.) 6 (Carrière) 7-9 (Rich Ca) 8

Lambertiana (Endlich conif) 12-13

Ayacahuite (Endl) 12

Strobiformis ? Visiani 14

excelsa (Hist Pinaceae) (11-12 (Link & Endl) 12 (Carr.) 6-14

Peuce (Macedon.) (9-10

### Pseudostrobus 6-7

P. aristata Colorado 7

pseudostrobus (Link Lin 15) 6

Hartwegii (Link Lin 15) 6

Gordoniana (Carr) 7

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11818A

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"Die meisten Coniferen und die Gnetaceen besitzen zwei, selten mehr* Cotyledonen, nur die Abietineen sind durch eine grössere Zahl derselben ausgezeichnet**.

* So Araucaria bis 12, wieder 3 oder 4, Taxodium 6–9, Sequoia 2–6, Callitris 2–4, Thuja bis 12, wieder 3, Biota selten 3, Cupressus selten 3–4, Juniperus sehr selten 3. Die Taxaceen ohne Ausnahme 2.

** Bis 15."

E. Strasburger. Die Coniferen und die Gnetaceen, p. 319.

S. Watson Nov 1878

apparently extracted from Parlatore

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Cotyledons in Conifers Particulars - &c.

## I Abietineae

### A Araucarieae

| | |
|---|---|
| 1. Araucaria | cotyl 2 integrae vel profunde bipartitae, ut videtur 4 |
| 2. Dammara | 2 |

### B. Pineae

| | |
|---|---|
| 3. Pinus | 3–15 |

### C. Taxodieae

| | |
|---|---|
| 4 Cunninghamia | 2 |
| 5 Arthrotaxis | 2 |
| 6 Sciadopitys | ~~2~~ 2 ! |
| 7. Sequoia | 2 2–3 partitae, unde videtur 4–6 |
| 8 Cryptomeria | 2 |
| 9 Glyptostrobus | 2 |
| 10 Taxodium | 4–9 |
| 11 Widdringtonia | 2 |

### D. Cupresseae

| | |
|---|---|
| 12 Actinostrobus | 2 |
| 13 Frenela | 2 (–3) |
| 14 Callitris | 2 bipartitae unde 4 |
| 15 Libocedrus | 2 |
| 16 Thuja | 2–5 2(–3) |
| 17 Thujopsis | — |
| 18 Biota | 2 (–3) |
| 19 Diselma | — |
| 20 Fitz-Roya | — |
| 21 Chamaecyparis | 2 |
| 22 Cupressus | 2–4 |
| 23 Juniperus | 2 (–3 ?) [2–6 !] |

## II Taxineae

| | |
|---|---|
| 24 Darrydium | 2 |
| 25 Pherosphaera | — |
| 26 Lepidothamnus | – |
| 27 Saxe-Gothaea | – |
| 28 Phyllocladus | 2 |
| 29 Taxus | 2 |
| 30 Cephalotaxus | 2 |
| 31 Torreya | 2 |
| 32 Ginkgo | 2 |
| 33 Podocarpus | – – |

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cm 0 1 2 3 4 5 6 7 8 9 10
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MISS MARY ANDERSON, THE YOUNG AMERICAN TRAGEDIENNE.

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| | | | | | | |
|---|---|---|---|---|---|---|
| Cotyledonares | Larix | : Cotyled | 5–7 | | | 0.045–55 Pollen |
| | Tsuga | | 3–7 | 3–7 | | 36–60 |
| | Abies | | 4–7 | | | 50–60 |
| | Picea | | 5–9 | 5–9 | | 40–60 |
| | Cedrus | | 9–11 | 9–11 | | 40–45 |
| C. | Pinus | Pinea | 10–16 | | | 40–46 |
| | | Cembroides | 8–12 | 8–16 | | 27–37 |
| | | Cembra | 8–13 | | | 26–45 |
| | | Strobus | 8–14 | | | 33–43 |
| | | Pseudostrobus | 6–7 | | | 30–44 |
| | | Teneatae | 5–10 | 4–10 | | 30–44 |
| | | Sylvestres | 4–9 | | | 20–50 |
| | | Taeda | 4–8 | | | 0.026–43 |

11821

Springfield Illinois den 12ten April 65

Lieber George!

Morgen früh reise ich nach Alton, Ich werde dort
eine Tasche mit, in welcher ich nicht gefärbte
Pflanzen, & Samen-Capseln verschiedener Art —
Morgen reise ich nach St Louis verschiedene
Tage fort — Ich bringe Mama accurat
Abend nach St Louis — die Tasche kommt
Freitag früh 8 Uhr Abds — wird wird es Abends 11
Uhr in St Louis sein. (10 Uhr Post St L.)
wird mir Joseph — Ihre Güter Abends zu schicken
Ich will Ihnen nächstens alles, Mama bald
nach Belleville — Morgen bis Abends Alexander
so viel ich Ihnen ganz bald auch einen
Kurzen geologischen Cours.

Mehr morgen früh — Herzlich grüßt

Engelmann

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Pines

Sylvestres Quaternatae

P. Engelmanni Carr,

Sylvestres Ternatae 5–(10)

P. ponderosa (Coppermines) 7

~~rigida (Lake Geo.)~~ 5

Benthamiana Carr 8–12

australis H. Durand 8 (Carr) 7–10

insignis (Monterey, Carry) 5–7

~~Tuberculata~~ Boland No 1 5–8

? Tecorote (Link Li 15) 5

Sylvestres Binatae 4–9

P. contorta (Hayden) (4)5 (Boland 2) (4–5)

P. Sylvestris (Berlin) 6–7 (H.B. Mission) 8 (Link Li 15) 5 (Arth Co.) 6–7

P. pumilio (Riesengb) (3–6) 5

P. resinosa (Minnesota) 6–7

pinaster (Link Li 15) 8

Halepensis (Venice) 6–9

Laricio (Arth Co) 5.

Austriaca

Mariandica (Link.) 6

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## Taeda 4–8

P. Taeda (Maryland Canby) (5–8) 7

rigida (Lake George) 5

serotina

Banksiana (Wisconsin Austin) (4–)5

mitis (Illinois) 7

— (Maryland Canby) 3–6

inops (Rich Cove) 4 Maryland 6

pungens (Lick Ck 15) 6

pungens Da 7

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The day after I sent you my last P. card as to the blooming of P. mitis and P. serotina - I had occasion to go many miles in quite another direction — happening through at least a mile of P. serotina! and was surprised to find this last pine fully as advanced in its flowering as P. mitis. —

Right about here in a certain locality P. serotina is about one week (I should say) behind P. mitis. However, speaking roughly, they ought to be said — (this season at least) - like P. australis & P. taeda — to bloom together! ———

P. Elliottii . P. aust. P. taeda . P. glabra . P. mitis . P. serot.
1 2 3 4 5 6

together?

together?

J. H. M 15 Apl 1880. —

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